## Claims

20

- A freeze-dried formulation comprising follicle-stimulating hormone (FSH) or a variant thereof as well as luteinising hormone (LH) or a variant thereof, as well as a surfactant selected from a polysorbat including Tween 20 (polyoxyethylene (20) sorbitan monolaurate), Tween 40 (polyoxyethylene (20) sorbitan monooleate).
- The freeze dried formulation according to claim 1, wherein the surfactant is
   Tween 20.
  - The freeze dried formulation according to any of claims 1 or 2, wherein the follicle-stimulating hormone is human follicle-stimulating hormone and/or the luteinising hormone (LH) is human luteinising hormone (LH).
- The freeze dried formulation according to claim 3, wherein the
   follicle-stimulating hormone is urinary human follicle-stimulating hormone
   and/or the luteinising hormone (LH) is urinary human luteinising hormone (LH).
  - 5. The freeze dried formulation according to any of claims 1 to 3, wherein the follicle-stimulating hormone is recombinant human follicle-stimulating hormone and/or the luteinising hormone (LH) is recombinant human luteinising hormone (LH).
  - The freeze dried formulation according to any of the preceding claims, wherein the follicle-stimulating hormone (FSH) is present at a concentration (w/w) of at or about 0.1 to 10 μg/mg of the total formulation.
  - 7. The freeze dried formulation according to claim 6, wherein the
    follicle-stimulating hormone (FSH) is present at a concentration of at or about
    0.3 to 5 µg/mg of the total formulation.
    - 8. The freeze dried formulation according to claim 7, wherein the follicle-stimulating hormone (FSH) is present at a concentration of at or about 0.37 to 2 µg/mg of the total formulation.

- 9. The freeze dried formulation according to any of the preceding claims, wherein the luteinising hormone (LH) is present at a concentration of at or about 0.1 to  $3 \mu g/mg$  of the total formulation.
- 10. The freeze dried formulation according to claim 9, wherein the luteinising hormone (LH) is present at a concentration of at or about 0.1 to 1 μg/mg of the total formulation.
  - 11. The freeze dried formulation according to claim 10, wherein the luteinising hormone (LH) is present at a concentration of at or about 0.1 to 0.6 μg/mg of the total formulation.
- 12. The freeze dried formulation according to any of the preceding claims, wherein the ratio of FSH to LH is within the range of at or about 6:1 to at or about 1:6.
  - 13. The freeze dried formulation according to claim 12, wherein the ratio of FSH to LH is within the range of at or about 4:1 to at or about 1:2.
- 14. The freeze dried formulation according to claim 13, wherein the ratio of FSH to LH is within the range of at or about 3:1 to at or about 1:1.
  - 15. The freeze dried formulation according to claim 14, wherein the ratio of FSH to LH is within the range of at or about 2:1 and 1:1.
  - 16. The freeze dried formulation according to any of the preceding claims, further comprising sucrose.
- 20 17. The freeze dried formulation according to any of the preceding claims, further comprising methionine.
  - 18. The freeze dried formulation according to any of the preceding claims, further comprising a phosphate buffer.
- 19. The freeze dried formulation according to any of the preceding claims, comprising the following ingredients: rFSH, rLH, Twe en 20, sucrose, methionine, a phosphate buffer.
  - 20. The freeze dried formulation according to any of claims 1 to 19, comprising comprising 12.0  $\mu$ g of recombinant FSH, 3.7  $\mu$ g of recombinant LH, 30.0 mg of

WO 2004/112826 PCT/EP2004/051138

23

- sucrose, 0.45 mg of NaH $_2$ PO $_4$  H $_2$ O, mg 1.11 of Na $_2$ HPO $_4$  2H $_2$ O, 0.05 mg of Tween 20 and 0.1 mg of L-methionine.
- 21. An article of manufacture comprising a first container filled with a freeze dried formulation according to any claims from 1 to 20 and a second container comprising a solvent for reconstitution.
- 22. An article of manufacture according to claim 21, whereby the second container contains water for reconstitution.
- 23. A method for manufacturing a freeze dried formulation according to any of claims 1 to 20, comprising the step of forming a mixture of FSH with e LH as well as a Tween 20, and subjecting the mixture to a lyophilisation.

10